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NETWORK SERVICES

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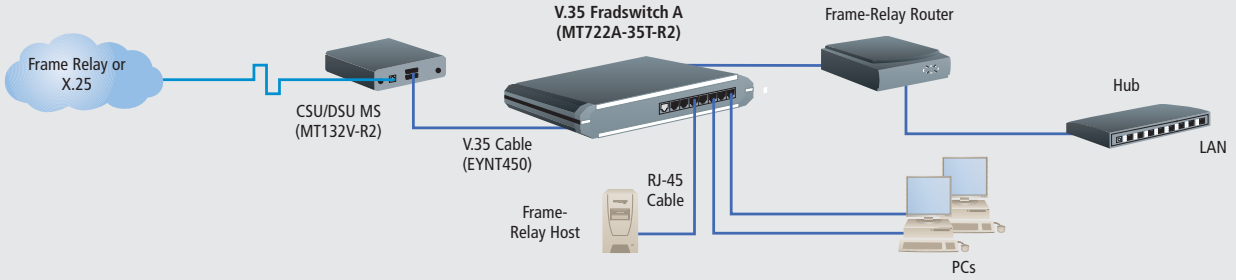
V.35 Fradswitch A

Don’t waste your time and money on modems and analog lines! Switch your async devices between high-speed Frame-Relay or X.25 links instead!

FEATURES

- Connect 8 or 24 async V.35 devices to any of three X.25 or Frame Relay links.
- V.35 main links have a top aggregate data rate of 2.15 Mbps.
- Async channels can be set for data rates up to 115.2 kbps.
- Supports async, X.25, Frame Relay, HDLC, SDLC, STM, and SLIP.
- Built-in management agent for configuration, monitoring, diagnostics, statistics, and reports.

The Fradswitch can be the centerpiece of just about any packet-switched network.



OVERVIEW

Do you have X.25 or Frame Relay service? Would you like to hook up a set of V.35 async equipment to one, two, or three synchronous Frame Relay/X.25 wide-area links and switch between them all?

That's exactly what the V.35 Fradswitch Asynchronous (Fradswitch A) is designed to do. It's a high-performance switch that you can use for routing between async devices and X.25 or Frame Relay connections.

V.35 Fradswitch A models have three synchronous main-link ports, and 8 or 24 V.35 equipment link ports, proprietarily pinned out on RJ-45 connectors.

The main-link ports can be set to use any of several protocols: Besides the standard ones for X.25 and Frame Relay, the Fradswitch also supports HDLC and SDLC, the proprietary stat-mux protocol STM (for use with our Stat-8 mux), plain async, and SLIP/encapsulated IP.

If you configure these ports for async or IP/SLIP operation, their maximum data rate is 115.2 kbps for each port. (This is also the top rate for each async channel.) If you configure the main-link ports to use a sync protocol, they have an aggregate data rate of 2.15 Mbps; that is, the total of the three ports' data rates, added together, can't exceed 2.15 Mbps.

The V.35 Fradswitch A has a powerful terminal-based menu system that enables you to configure it for many types of packet-switching applications, then operate it with little or no maintenance. The unit supports permanent virtual circuits (PVCs) and switched virtual circuits (SVCs), call IDs, NUI databases, aliasing, IP routing and routing tables, Frame Relay funneling, X.32 (XID) tables, SNMP management and event reporting, X.25 multicasting—and much, much more!

Multisession is also provided on each async channel; each channel can access up to four separate sessions simultaneously. This Fradswitch feature makes it easy for you to compare data from different sources.

The V.35 Fradswitch A is rackmountable, and it also has flash memory, so you can keep upgrading it—with even more features—for as long as we keep releasing new firmware revisions.

MT720A-35T-R2

TECH SPECS

Clock Source — Internal or recovered from receive signal (independently user-selectable for receive and transmit paths)
Command Modes — Async channels only: ITU-T X.28 and proprietary extensions; ITU-T X.29
Compliance — CE (EN 55022, EN 50082-1, EN 60950), FCC Part 15 Subpart B Class A, IC Class/classe A
Data Rate — Each async channel and each main-link port set as sync: 75, 110, 150, 300, or 600 bps, or 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, or 115.2 kbps, user-selectable;
Main-link ports set as sync (aggregate): Any combination of data rates that, when added together, does not exceed 2.15 Mbps
Flow Control — Async channels only: X-ON/X-OFF
Logon Messages — Async channels only: Herald and bulletin (user-definable)
Memory — 2 MB RAM
Packet Size — X.25: Up to 4096 bytes (4 KB);
Other protocols: Up to 8192 bytes (8 KB)
Protocols — Async channels (async only) and main-link ports set as async: ITU-T X.28 or IP/SLIP, user-selectable; supports IP encapsulation over X.25 (as per RFC 1356) or Frame Relay (as per RFC 1490); also supports dialup links for X.25 with X.32 protocols;
Main-link ports set as sync:
Packet-switching: ITU-T X.25 or Frame Relay (user-selectable);
X.25: Complies with ITU-T X.25 (1988), LAP-B;
Frame Relay: Complies with ANSI T1.606, T1.617 Annex D, and T1.618, as well as ITU-T Q.922 Annex A; also supports CLLM, LMI, and ANSI PVC management protocols;
Data link (optional): HDLC, SDLC, or STM (proprietary, user-selectable):
STM: Compatible with Stat-8 statistical multiplexor;
Management: SNMP
Terminal Handling — Enhanced, beyond ITU-T X.3 requirements
User Controls — On-screen terminal-based menu system, including SNMP management; (1) Front-mounted recessed reset push button; (1) Internal jumper on motherboard for power-up configuration loading
Interface — Async channels: EIA/TIA RS-232, DCE, proprietarily pinned on RJ-45;
Main-link ports (all DTE): ITU-T V.35
Connectors — All rear-mounted: MT720A-35T-R2: (8) RJ-45 F for async channels;
MT722A-35T-R2: (24) RJ-45 F for async channels;
Both: (3) M/34 female for main-link ports
Indicators — (18) or (34) front-mounted LEDs: All models: (1) for unit power; (1) for hardware error; (1) for buffer overflow; (1) for test mode; (3) for main-link synchronization (one for each main-link port); (3) for main-link activity (one for each main-link port);
MT720A-35T-R2: (8) for async channel activity (one for each async channel);
MT722A-35T-R2: (24) for async channel activity (one for each async channel)
Temperature Tolerance — 32 to 122° F (0 to 50° C)
Humidity Tolerance — Up to 90%, noncondensing
Power — From utility-power outlet, through included 6.5-ft. (2-m) power cord and rear-mounted IEC 320 male inlet, to internal transformer: Input: 100–230 VAC, 50–60 Hz (autosensing);
Fuse: Integral 0.5 A, 250 V;
Consumption: Up to 20 watts
Size — 1.7"H x 17"W x 11.7"D (4.3 x 43.2 x 29.9 cm)
Weight — 4.2 lb. (1.9 kg)

WHAT'S INCLUDED

- V.35 Fradswitch A
- Power cord
- Control cable
- Rackmount kit
- User's manual
- Packet Switching Guide

Item	Code
V.35 Fradswitch A	
with V.35 Main-Link Ports	
8-Channel	**MT720A-35T-R2**
24-Channel	**MT722A-35T-R2**
If you need a CSU/DSU, order…	
CSU/DSU MS	**MT132V-R2**
You might also need a modem…	
Modem 3600	**MD1000A**
…or a Modular Statistical Multiplexor…	
Stat-8	**MX866A**
Remember to order cables…	
Shielded Twisted-Pair Patch Cable (STP) with Snagless Boots, 4-Pair, RJ-45, CAT5, Stranded, PVC, Gray	**EVNSL60**
V.35 Interface Cable (34-Conductor), Male/Male	**EYNT450-MM**
To purchase a modular adapter, or for help building one, call Black Box Technical Support.	
Guard your Fradswitch with surge protectors…	
Surge Protectors	
CAT5 100BASE-TX Surge Protector	**SP250A-R2**
RS-232 DB25 (All Wires) Protector	**SP360A**
V.35 Data Line Protector	**SP143A-R2**
RS-422 Surge Protector, DB15	**SP508A**